

Title (en)

HEAD-UP DISPLAY AND MOBILE BODY ON WHICH HEAD-UP DISPLAY IS MOUNTED

Title (de)

HEADUP-ANZEIGE UND MOBILER KÖRPER MIT DARAUF MONTIERTER HEADUP-ANZEIGE

Title (fr)

AFFICHAGE TÊTE HAUTE ET CORPS MOBILE SUR LEQUEL EST MONTÉ UN AFFICHAGE TÊTE HAUTE

Publication

EP 3816700 A4 20210728 (EN)

Application

EP 19826989 A 20190226

Priority

- JP 2018122314 A 20180627
- JP 2019007250 W 20190226

Abstract (en)

[origin: EP3816700A1] The present disclosure provides a head-up display capable of being downsized yet presenting a virtual image with excellent image quality. The head-up display 100 displays an image as a virtual image I and includes a display device 110 to display the image, and a projection optical system 140 to enlarge and project the image. The projection optical system 140 includes a first optical element 123 and a second optical element 125 arranged in this order in an optical path from the image. The first optical element 123 has a diverging action that is stronger in a horizontal direction than in a vertical direction. The second optical element 125 has a converging action that is stronger in the horizontal direction than in the vertical direction.

IPC 8 full level

G02B 27/01 (2006.01); **B60K 35/00** (2006.01); **G02B 13/08** (2006.01); **G02B 17/06** (2006.01); **G02B 17/08** (2006.01)

CPC (source: EP US)

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Citation (search report)

- [X1] WO 2018066062 A1 20180412 - MAXELL LTD [JP], et al & US 2019225083 A1 20190725 - YATSU MASAHIKO [JP], et al
- [A] EP 3035105 A1 20160622 - PANASONIC IP MAN CO LTD [JP]
- See also references of WO 2020003611A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3816700 A1 20210505; **EP 3816700 A4 20210728**; **EP 3816700 B1 20231122**; JP 7190653 B2 20221216; JP WO2020003611 A1 20210826; US 11275241 B2 20220315; US 2021103144 A1 20210408; WO 2020003611 A1 20200102

DOCDB simple family (application)

EP 19826989 A 20190226; JP 2019007250 W 20190226; JP 2020527196 A 20190226; US 202017123627 A 20201216